Executive Summary

The Gruber Foundation honors individuals in the fields of Cosmology, Genetics, Neuroscience, Justice, and Women’s Rights, whose groundbreaking work provides new models that inspire and enable fundamental shifts in knowledge and culture.

The Gruber Foundation is a 509(a)(3) Type 1 supporting organization operated, supervised, or controlled by Yale University and incorporated in 2011 under the 501(c)(3) section of U.S. Corporate Law. It was funded by The Peter and Patricia Gruber Foundation, and Peter and Patricia Gruber serve as its Co-founders, and Chairman Emeritus and President Emeritus, respectively.

The Foundation ended its third year at Yale with new programs blossoming and ongoing programs in robust shape. We were thrilled to have the President of Yale-NUS, Pericles Lewis, join us for the 2013 Genetics Prize in Singapore along with members of his faculty. Yale’s Vice President of Development, Joan O’Neill, participated in the Neuroscience Prize event in her role as Gruber Board Member. 2013 also marks the first Gruber Prize event staffed by a Gruber Science Fellow — a success that we intend to continue going forward, with all three Prizes.

Along with Singapore, the 2013 Gruber International Prizes were awarded in San Diego and the United Kingdom; the Gruber Program for Global Justice and Women’s Rights held lectures by Zainab Salbi and Shirin Ebadi, among other events such as the Global Constitutionalism Seminar, and the Gruber Science Fellowship Program administered by Yale’s Graduate School provided support to another cohort of exceptional students. In the spring, we gathered Gruber Fellows from both the sciences and the human rights programs for a reception at my home, and some found exciting commonalities in their work that crossed disciplinary boundaries. The three programs are described in more detail in their respective sections.

The Board of Directors of The Gruber Foundation comprises: Peter Salovey, Chairman; Ben Polak, President; Patricia Gruber, President Emeritus; Joan O’Neill; Waring Partridge. The Treasurer is Robert Herr, and the Executive Director is A. Sarah Hreha.

Further information on the Foundation is available online at gruber.yale.edu

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Fiscal Year 2014 Financial Overview
Statement of Financial Position as of June 30, 2014

Assets
Cash and cash equivalents $ 64,433
Investments 94,606,389
Beneficial Interest in charitable gift annuity 23,854,770
Total assets 118,525,592

Liabilities
Accounts payable 7,283
Total liabilities 7,283

Net assets $118,518,309

PROGRAM SPENDING

Grants to Yale University

The Gruber Foundation provides grants to Yale University for the Gruber Science Fellowship Program and the Gruber Program for Global Justice and Women’s Rights. The agreement provides that The Gruber Foundation will distribute for the benefit of the Gruber Science Fellowship Program the greater of $2.5 million or 1.6% of the net value of The Gruber Foundation’s assets as of the beginning of each fiscal year. In addition the agreement provides for disbursements of $1.2 million for the benefit of the Global justice and Women’s Rights Program.

The following grants have been distributed through June 30:

Gruber Science Fellowship Program $2,500,000
Gruber Justice and Women’s Rights $1,200,000

$3,700,000

Gruber Prizes

Gruber Prizes disbursed through June 30, 2014 were as follows*:

2013 Cosmology Prize $500,000
2013 Neuroscience Prize $500,000
$1,000,000

*The 2013 Genetics Prize was disbursed during FY2013

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Gruber International Prize Program

Fiscal year 2014 saw two of the 2013 Gruber Prize awards in the fall of 2013, with Genetics having been presented in April, 2013. The program mission statement is: The International Prize Program honors individuals in the fields of Cosmology, Genetics, and Neuroscience, whose groundbreaking work provides new models that inspire and enable fundamental shifts in knowledge and culture.

The 2013 Prizes

COSMOLOGY

September 3, 2013
COSMO2013 Conference
Cambridge, UK
Gruber Lecture: Quantum beginning of our Universe

2013 Cosmology Prize co-recipient
Viatcheslav Mukhanov with Patricia Gruber

Prize Citation:
The Gruber Foundation proudly presents the 2013 Cosmology Prize to Viatcheslav Mukhanov and Alexei Starobinsky for their profound contribution to inflationary cosmology and the theory of inflationary perturbations of the metric. These developments changed our views on the origin of our universe and on the mechanism of formation of its structure.

Selection Advisory Board: Andrew Fabian, Wendy Laurel Freedman (Chair), Owen Gingerich (non-voting), Gerhard Huijken, Helge Kragh, Andrei Linde, Julio Navarro, Sadanori Okamura, Martin Rees (non-voting)

GENETICS

April 16, 2013
21st International Congress of Genetics,
Singapore
Lecture: Archaic Genomics

2013 Genetics Prize recipient
Svante Pääbo flanked by
Maynard Olson and Sarah Hreha

Prize Citation:
The Gruber Foundation proudly presents the 2013 Genetics Prize to Svante Pääbo for pioneering the analysis of ancient DNA.

Prior to Dr. Pääbo’s research, scientists vacillated between defeatist and overly exuberant views of the feasibility of sequencing DNA older than a few hundred years. Through painstaking development of new methods for handling, extracting DNA from, and sequencing ancient samples, Dr. Pääbo determined whole-genome sequences from fossils as old as 80,000 years.

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The ancient DNAs analyzed included the genomes of Neandertal and Denisova, extinct relatives of contemporary humans. Dr. Pääbo's studies established that although early humans and these extinct relatives were contemporary inhabitants of Europe and Asia, they last shared a common ancestor hundreds of thousands of years ago.

Strikingly, Dr. Pääbo's research demonstrated that certain segments derived from Neandertal and Denisovan genomes are found in modern humans, providing evidence of early interbreeding of these populations. His studies were a technological tour de force, opened new windows into the distant past, and provided fundamental insights into our origins.

Selection Advisory Board: Bonnie Bassler, Martin Chalfie, Richard Lifton, Maynard Olson, Janet Rowley, Allan Spradling, Huda Zoghbi (Chair)

NEUROSCIENCE

November 10, 2013
43rd Annual Meeting of the Society for Neuroscience, San Diego, CA
Gruber Lecture: Understanding Circuit Dynamics: Variability, Modulation, and Homeostasis

Prize Citation:
The Gruber Foundation proudly presents the
2013 Neuroscience Prize to Eve Marder for her contributions to understanding how circuit dynamics and behavior arise from the properties of component neurons and their synaptic connections.

Eve Marder has used the stomatogastric ganglion in crustaceans to reveal principles general to all nervous systems, including the fundamental finding that circuits can be functionally reconfigured by neuromodulators, even if fixed morphologically. With the insight that there are multiple plausible solutions for any given output, she developed circuit models and tools to explore their 'parameterscape', revealing the complexity of possible neural solutions. The implications of her work reach across neuroscience, including homeostatic mechanisms of plasticity.

Through her creative pursuits, she has inspired and guided both her trainees and her colleagues to appreciate how diversity can be compatible with robust network function.

Selection Advisory Board: Carol Barnes (Chair), Ben Barres, Stephen Heinemann, David Lewis, Erwin Neher, Leslie Ungerleider, Robert Wurtz

More information on the 2013 Gruber Prizes is available at: http://gruber.yale.edu/gruber-prizes

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Gruber Program for Global Justice and Women’s Rights

The Gruber Program for Global Justice and Women’s Rights has three core components: 1) the Global Constitutionalism Seminar; 2) the Gruber Distinguished Global Justice and Women’s Rights Lectures; and 3) the Gruber Global Justice and Women’s Rights Fellowships.

Global Constitutionalism Seminar

The Global Constitutionalism Seminar took place September 25-28, 2013, in New Haven, with the theme “Governments’ Authority.” Twenty-three judges from 18 national or transnational jurisdictions participated in the seminar’s roundtable format. In addition to the rich exchanges facilitated by the Seminar’s roundtable sessions and student events, the Yale community benefited from the extended stay of Justices Albie Sachs, Frank Iacobucci (formerly of the Supreme Court of Canada) and Lech Garlicki (formerly of the European Court of Human Rights). As Gruber Global Constitutionalism Fellows, each taught a course at the Law School during the Fall 2013 semester.

Gruber Distinguished Lectures in Global Justice and Women’s Rights

Zainab Salbi presented the Gruber Distinguished Lecture in Women’s Rights on October 21, 2013, to over 150 students, faculty, and others. An extraordinary humanitarian and activist, Ms. Salbi is the founder of Women for Women International, an organization dedicated to empowering women in post-conflict areas. She also served on the Gruber Women’s Rights Prize Selection Advisory Board.

Shirin Ebadi presented the 2014 Gruber Distinguished Lecture in Global Justice, “Human Rights in the Muslim World,” on March 3, 2014. Dr. Ebadi was awarded the 2003 Nobel Peace Prize for her work on behalf of political dissidents, women, and children in Iran. Over the course of her two-day visit, Dr. Ebadi participated in a range of small and large-scale events that provoked discourse and debate.

Gruber Global Justice and Women’s Rights Fellowships

Post-Graduate Fellowships

The third class of Gruber Fellows in Global Justice and Women’s Rights will have completed their fellowship projects as of fall 2014.

Glenda Aldana Madrid (Yale Law School ’13) worked on border patrol issues and naturalization-related cases involving federal litigation with the Northwest Immigrant Rights Project in Seattle.

Andrew Iliff (Yale Law School ’12) was part of a large team of counselors, researchers and clinical staff at the Counseling Services Unit in Harare, Zimbabwe, and is working to establish a civil society working group to support the Zimbabwe Human Rights Commission.

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Marvin Lim (Yale Law School ’13) worked on international issues of religious freedom and equal treatment with the American Civil Liberties Union in New York City.

Jeffrey Love (Yale Law School ’12) worked on war crimes issues as a clerk for Judge Daqun Liu at the International Criminal Tribunal for the former Yugoslavia at The Hague, Netherlands.

Amelia Reese Masterson (Yale School of Public Health ’13) worked on a community-based program to promote food security and women’s entrepreneurship in Palestinian communities, with the American University in Beirut in Beirut, Lebanon.

Zorka Milin (Jackson Institute for Global Affairs ’13) researched tax payments made by multinational extractive companies in developing countries and advocated for improved tax and transparency laws in relation to them, with Global Witness in Washington, DC and London.

The Gruber Committee selected seven post-graduate 2014-2015 Peter and Patricia Gruber Fellows in Global Justice and Women’s Rights, from a pool of 24 applications received from Yale graduate students and alumni from the Law School, the School of Medicine, the School of Forestry and Environmental Studies (FES), the School of Public Health, and the Jackson Institute for Global Affairs. The newest cohort of Fellows includes the Program’s first FES graduates, as well as a placement with an organization led by a Yale World Fellow alumnus.

**Faculty Fellowships**

In the Spring 2014 semester, Justices Aharon Barak and Dieter Grimm (formerly of the Federal Constitutional Court of Germany) return to Yale as Peter and Patricia Gruber Fellows in Global Justice, to teach a course at the Law School.

**2013-2014 Gruber Committee**

The Gruber Committee is appointed by the Yale Law School Dean and is responsible for selecting the Gruber Fellows and the Gruber Distinguished Lecturers. The 2013-2014 Gruber Committee includes: Reva Siegel (Gruber Committee Chair and Nicholas deB. Katzenbach Professor of Law); Muneer Ahmed (Clinical Professor of Law); Michael Cappello (Professor of Pediatrics, of Epidemiology, and of Microbial Pathogenesis; Director of the Yale Program in International Child Health; Director of the Yale World Fellows Program); Linda Lorimer (Vice President for Global and Strategic Initiatives); Robert C. Post (Dean and Sol & Lilian Goldman Professor of Law); Judith Resnik (Arthur Liman Professor of Law); and, ex officio, Megan Barnett (Associate Dean, Yale Law School) and Sara Lulo (Director of the Gruber Program for Global Justice and Women’s Rights).

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Gruber Science Fellowship Program

The purpose of the Gruber Science Fellowship is to recruit and support the very best graduate students to pursue doctoral studies in the life sciences, cosmology and astrophysics at Yale's Graduate School of Arts and Sciences.

Graduate School Dean Thomas Pollard and Patricia Gruber pose with the 2013 cohort of Gruber Science Fellows at Yale.

Evan Anderson, Molecular Medicine, Pharmacology, and Physiology
Brian DeAngelis, Neuroscience
Ross Federman, Immunology
Ann Fede, Molecular Cell Biology, Genetics, and Development
Sara Marie Katranza, Neuroscience
Xiaoni Liu, Molecular Medicine, Pharmacology, and Physiology
Omer Mano, Molecular Cell Biology, Genetics, and Development
Emily Putnam, Microbiology
Angelo Ricarte, Astronomy
Eric Rosenberg, Molecular Medicine, Pharmacology, and Physiology
Molly Ryan, Biochemistry, Biophysics, and Structural Biology
Emilio Salazar, Neuroscience
Ethan Sarnoski, Microbiology
Elizabeth Scott, Molecular Cell Biology, Genetics, and Development
Young-Eun Seo, Biomedical Engineering
Laura Skrip, Public Health
Tyler Smith, Biochemistry, Biophysics, and Structural Biology
Amy Werner-Allen, Computational Biology and Bioinformatics
Lauren Wigen, Molecular Cell Biology, Genetics, and Development
Alexandria Williams, Molecular Cell Biology, Genetics, and Development
Yasmin Zakiniaelz, Neuroscience

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Carla Shatz, Sapp Family Provostial Professor, David Starr Jordan Director, Stanford BIO-X and Professor of Biology and of Neurobiology, delivered the 2014 Gruber Science Fellowship Lecture on April 22.

Professor Shat's lecture was titled "Developmental Critical Periods and Alzheimer's Disease"